

Menu Item for Promoting *Energy Efficiency &* Reducing *Greenhouse Gases*

TRIBAL AIR WORK PLAN OBJECTIVE: To promote energy efficiency within the tribal administration and community, and throughout the reservation, thereby ensuring comfort, cost effectiveness, and protection of air quality and prevention of greenhouse gas emissions; to the extent possible, demonstrate leadership with regard to the production and use of renewable and clean energy technologies such as combined heat and power.

Background:

The energy used in our homes, schools, and businesses is a major source of air pollution. Commercial buildings alone are responsible for 20% of U.S. greenhouse gas emissions. The energy used in the average home can cause twice as many greenhouse gas emissions as operating a vehicle for one year. Numerous studies indicate that 30% or more of this energy is wasted. Homeowners and businesses can typically cut their energy use by one third with similar savings on energy bills and greenhouse gas emissions. Improving energy efficiency in buildings saves money, reduces emissions, and improves the reliability of energy supplies by reducing the stress on sources and distribution systems.

Renewable and clean energy technologies - solar, wind, geothermal, hydropower, biomass, and combined heat and power – are becoming increasingly cost-effective in an expanding set of residential, commercial, and industrial applications. These technologies hold tremendous potential for reducing the environmental impacts of power generation and primary energy use. Federal and state programs are also expanding to offer grants, tax incentives, and technical assistance for these technologies.

Funding Mechanism:

Energy efficiency is usually self-financing; the money saved on future energy bills pays for improvements to equipment, management practices, and operations. Significant energy savings can be achieved with little or no capital investment, and numerous technological options pay for themselves very quickly (e.g. lighting upgrades.)

ENERGY STAR[®] provides free information, tools, and resources to help businesses, governments, and consumers improve energy performance and save money. Information on these resources can be found at www.energystar.gov

The Department of Energy's (DOE) Office of Renewable Energy and Energy Efficiency oversees the **Tribal Energy Program**, which offers limited grant funding, informational resources, and training to tribes to promote energy efficiency and renewable energy. The home page for the program is: <http://www.eere.energy.gov/tribalenergy/>

The vast majority of funding available for energy efficiency comes from **state public benefit funds** created by mandatory charges on all electricity consumption. The funds are disbursed by electric utilities or statewide organizations in the form of consumer product rebates and incentives, residential construction and audit services, and programs to improve business and institutional energy performance. In most states, tribes are treated as other electricity customers, and are eligible to receive rebates, programs, and services which can dramatically reduce the cost of energy efficiency upgrades. The most recent summary of state programs can be found at this link on the website of the American Council for and Energy Efficient Economy (ACEEE): <http://www.aceee.org/briefs/mktabl.htm>

Many states also provides **funding and/or incentives for developing renewable energy resources**. DOE funds the **Database of State Incentives for Renewable Energy (DSIRE)**, housed at North Carolina State University. Their website is constantly updated with complete information and links to all current programs and incentives in each state: <http://www.dsireusa.org/index.cfm?&CurrentPageID=9>

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ACTIVITIES / TASKS: The following *tasks* or *activities* are options for a grant applicant to consider in developing a work plan that includes indoor air quality-related objectives. Adapting these needs to take advantage of the best opportunities for energy efficiency and renewable energy technologies in a specific reservation or tribal community is encouraged. EPA Regional Offices are available to coordinate training and provide technical advice on what a particular tribe may require to adequately support their proposed workplan activities. A *timeline* is then created by estimating the dates by which each task, and sub-task, will be completed in order to accomplish the objective by the planned date.

Promote Energy Efficient Products and Residences:

- *Purchasing policies:* Establish tribal purchasing policies for energy efficient products. ENERGY STAR provides a complete purchasing tool kit for state, municipal and tribal governments.
- *Raise public awareness of energy efficient products:*
 - Promotions linked to national ENERGY STAR campaigns, such as Change a Light, Change the World
 - Outreach through businesses, community groups, and schools.
- *Promote ENERGY STAR Homes and Home Improvement Tools.*
- *Request that Tribal Housing RFPs include ENERGY STAR criteria for specifications on new facilities (including insulation, HVAC and appliances.)*
- *Disseminate information on product rebates and energy efficiency incentives available through local utilities and state and local governments and organizations.*

Promote Energy Efficient Commercial Buildings

- *Promote the ENERGY STAR Challenge: Building a Better World 10% at a time in schools, office buildings, bank branches, hospitals, medical offices, hotels, and grocery stores.*
- *The ENERGY STAR Challenge asks commercial building owners and operators to do three things:*
 - Determine how much energy buildings are using;
 - Develop plans to improve energy performance by 10% or more; and
 - Implement plans and track results.
- *Promote awareness and utilization of free training available from EPA for building owners and operators.*

Produce and Use Renewable and Clean Energy

- Look for opportunities to integrate distributed renewable energy into the tribe's energy supply. Examples might be: agricultural methane to electricity, biomass, wind, combined heat and power, geothermal, wave/current turbines and photovoltaics (particularly when electricity is required for remote usages.)
- Become a member of EPA's Green Power Partnership by purchasing green power as a portion of tribal electricity.
- Become a member of EPA's Combined Heat and Power (CHP) Partnership program by promoting and/or developing combined heat and power resources.
- Develop renewable and clean energy resources.
- Use available state and federal grant funds for renewable and clean energy projects.

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WORK PLAN RESULTS: Results from EPA grant funded activities (also known as “deliverables”) are characterized as either *outputs* or *outcomes*. Both are important means of documenting grant accomplishments. For explanation of *outputs* and *outcomes* see the Menu Item for *Air Quality Administration Infrastructure*

Possible Outputs: [These are examples of *outputs* for this objective: there may be others.]

- Track number and square footage of facilities benchmarked.
- Number of training sessions and number of building managers, home builders, etc. trained.
- Purchasing policies adopted and implemented.

Possible Outcomes: [These are examples of *outcomes* for this objective: there may be others]

Expressed as a result of an individual Tribal grant:

- Number of ENERGY STAR labeled homes built.
- Number of ENERGY STAR labeled products sold, by product category.
- Percentage improvements in energy performance at benchmarked facilities funded by grant.
- Increase in installed renewable energy and combined heat and power capacity enabled by grant.

Expressed as a measure of overall Tribal program performance (over a stated baseline or a cumulative total)

- Increase in number of ENERGY STAR labeled homes built on a geographic basis (i.e., nationally, by state/local jurisdiction) or per recipient’s cumulative efforts over time.
- Increase in number of ENERGY STAR labeled products sold, by product category, on a geographic basis (i.e., nationally, by state/local jurisdiction) or per recipient’s cumulative efforts over time.
- Percentage improvements in energy performance at all benchmarked facilities.
- Increase in installed renewable energy and combined heat and power capacity for all grant funded projects over baseline.

FY 2006 NATIONAL EPA PERFORMANCE MEASURE(S): No factor has been established to measure EPA’s progress in this area during fiscal year 2006. The following would be an example of such future measures.

- Number of tribal facilities benchmarked.
- Number of tribes and businesses that are ENERGY STAR partners.
- Total energy use reductions in tribal facilities.
- Amount of green power purchased (kWh).